

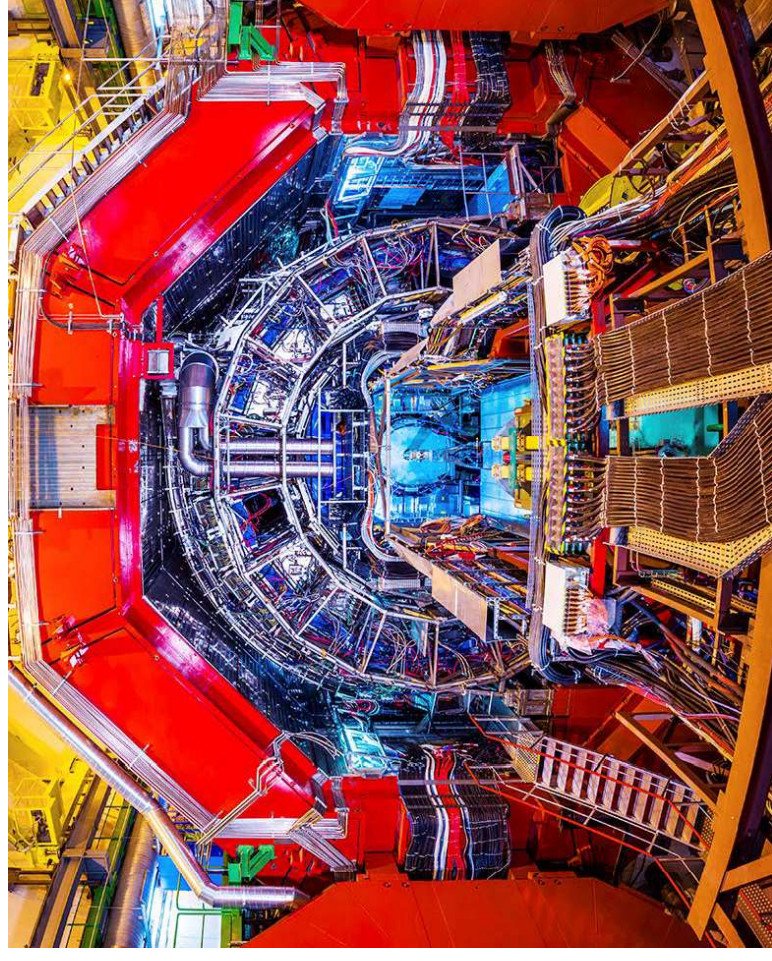
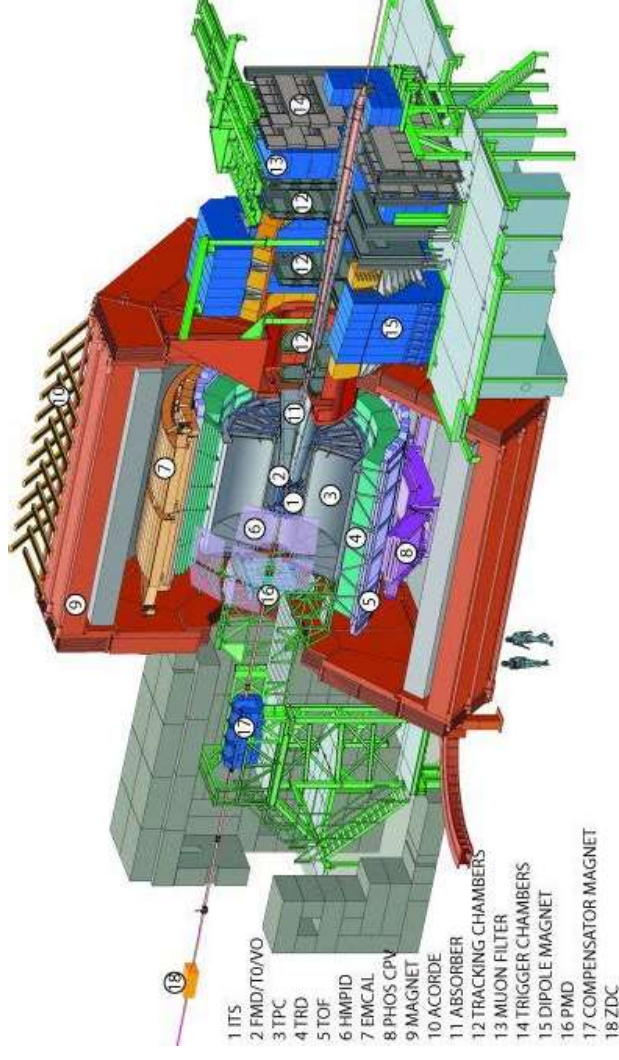
ICE Upgrades Forward!

July 28 2020

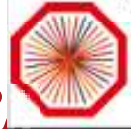
G. Bearden
EHI

Experimental Subatomic Physics
Niels Bohr Institute

COPENHAGEN UNIVERSITET



S18, I showed this.

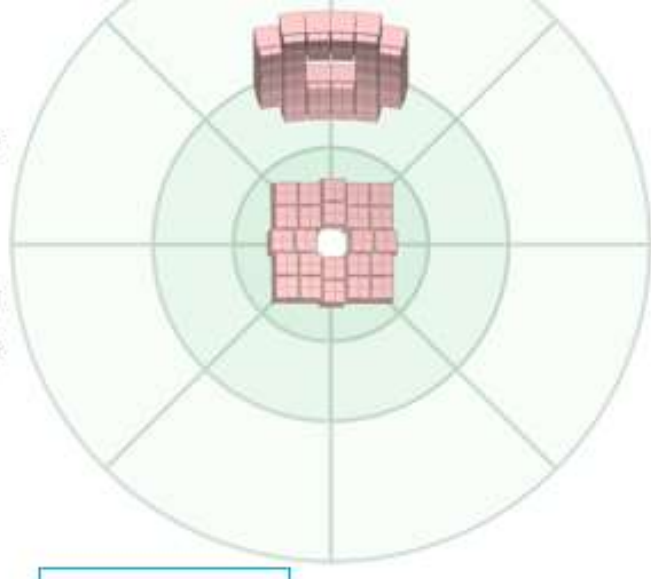
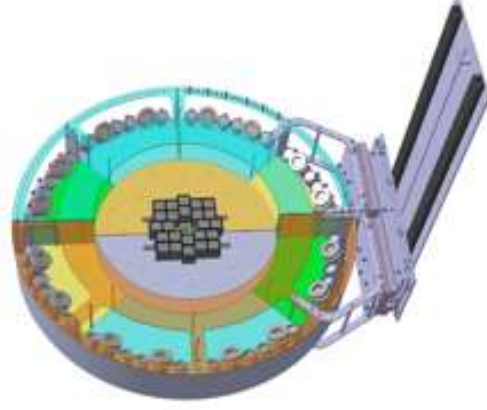


ALICE

ALICE: Fast Interaction Trigger (FIT)

- Scintillator +PMT
- Quartz cherenkov radiators coupled to MCPs (20ps resolution)

- 18-19: Procure & validate MCPs
- 19: Integration & Installation (C side)
- 19-20: Integration & Installation (A side)



Upcoming deliverables:

- Mechanics – Support structure FIT A
- Fast pulsed laser(s) ps timing, 420 nm
- Monitoring system for laser/optical fibers

DIBS '18



NordForsk BigScience.dk



DTU

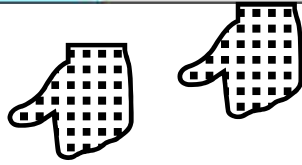
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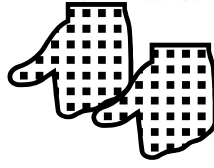
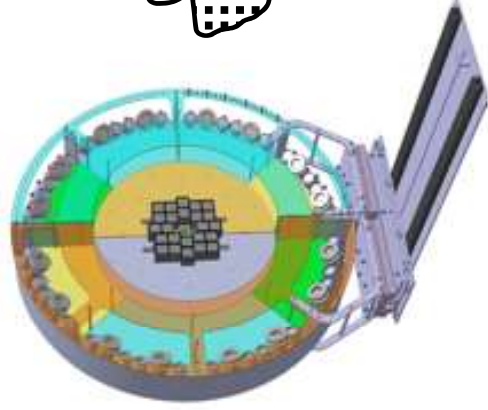
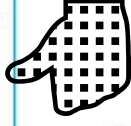
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ALICE

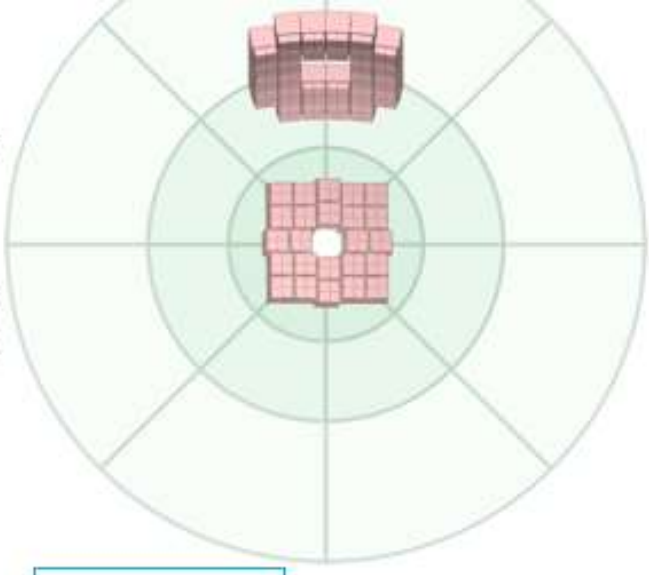
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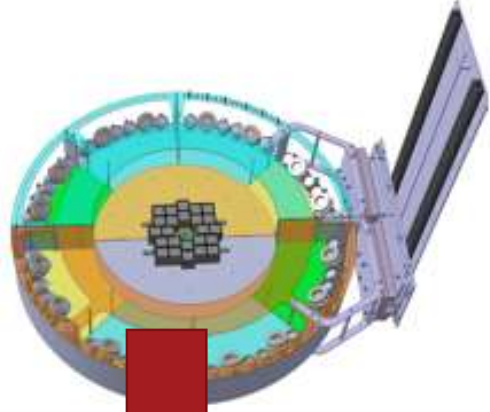
Aerospace

AlmexA produces parts for the Aerospace industry, both civilian and military aircraft and helicopters:

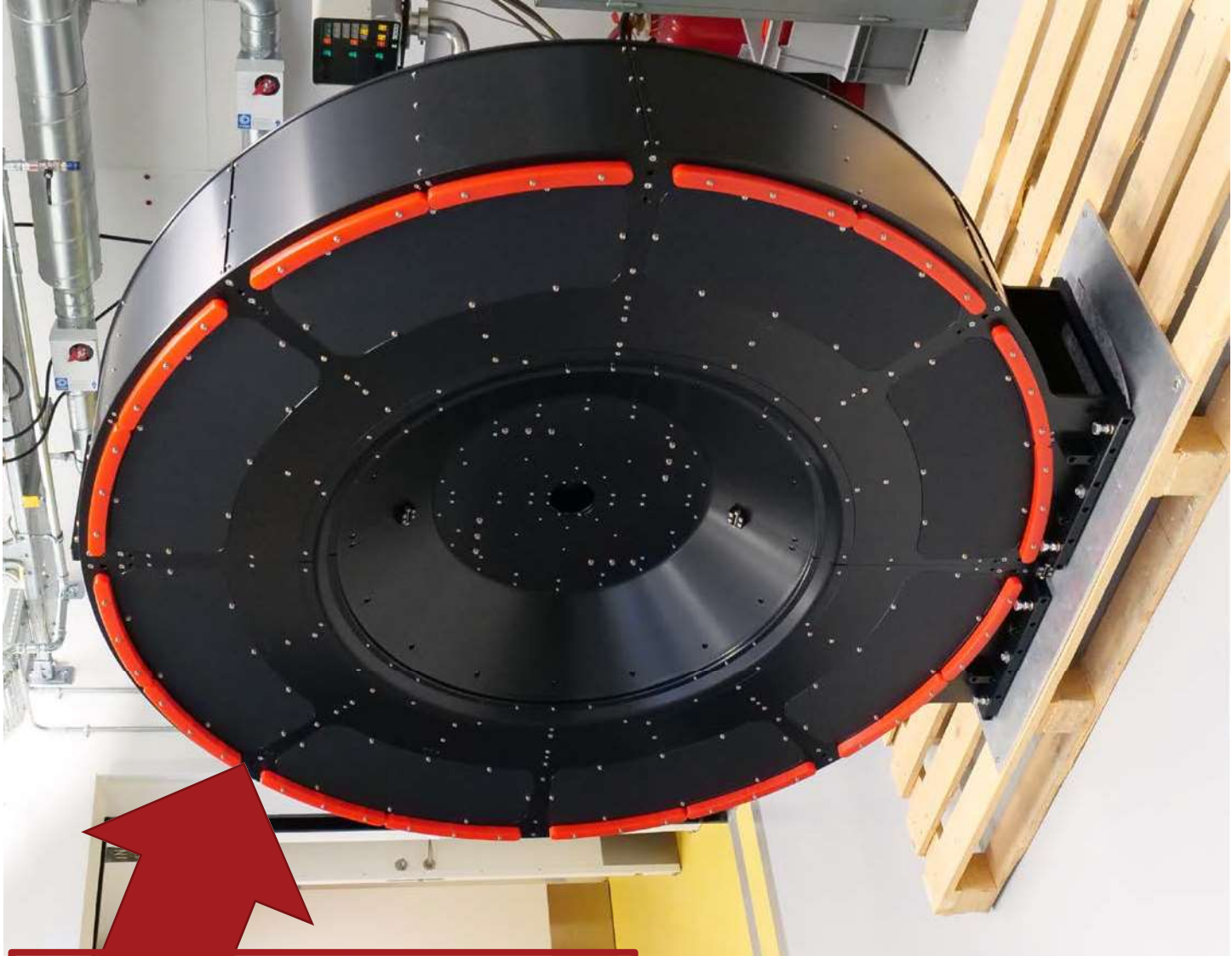
- Floor sections
- Bulkheads
- Landing gear struts
- Window frames
- Wing & fuselage skins
- Seat tracks

We are dedicated to understanding and utilizing the very best techniques and strategies to complement the industry

19-20: Integration & Installation (A si



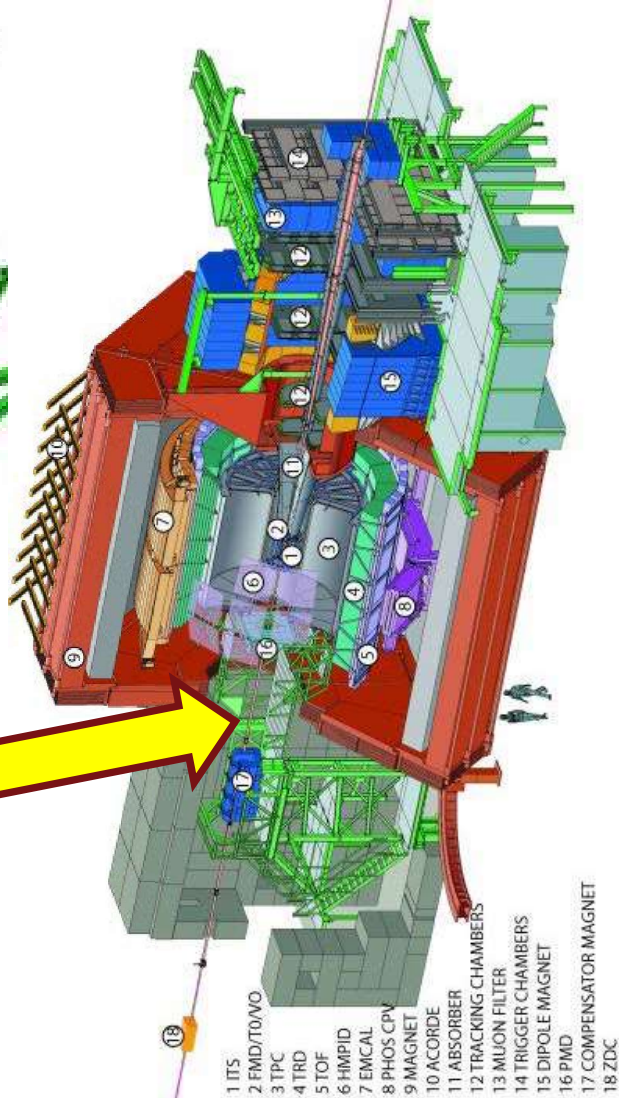
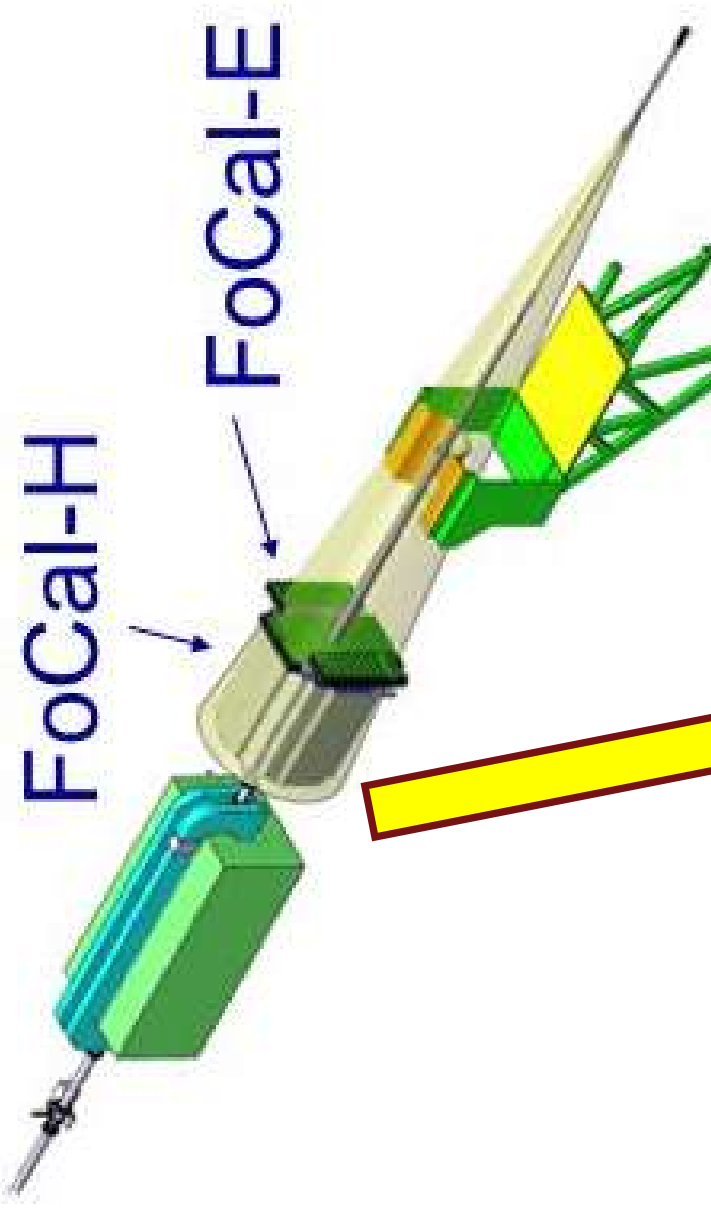
Upcoming delive
Mechanics –
Fast pulsed I
Monitoring :



NEXT: FoCal (ALICE Forward CALorimeter)

$3.2 < \eta < 5.8$
(baseline design @ 7m)

Cal-E: high-granularity Si-W sampling calorimeter for photons and π^0
Cal-H: conventional Cu-Sc sampling calorimeter for photon isolation and jets



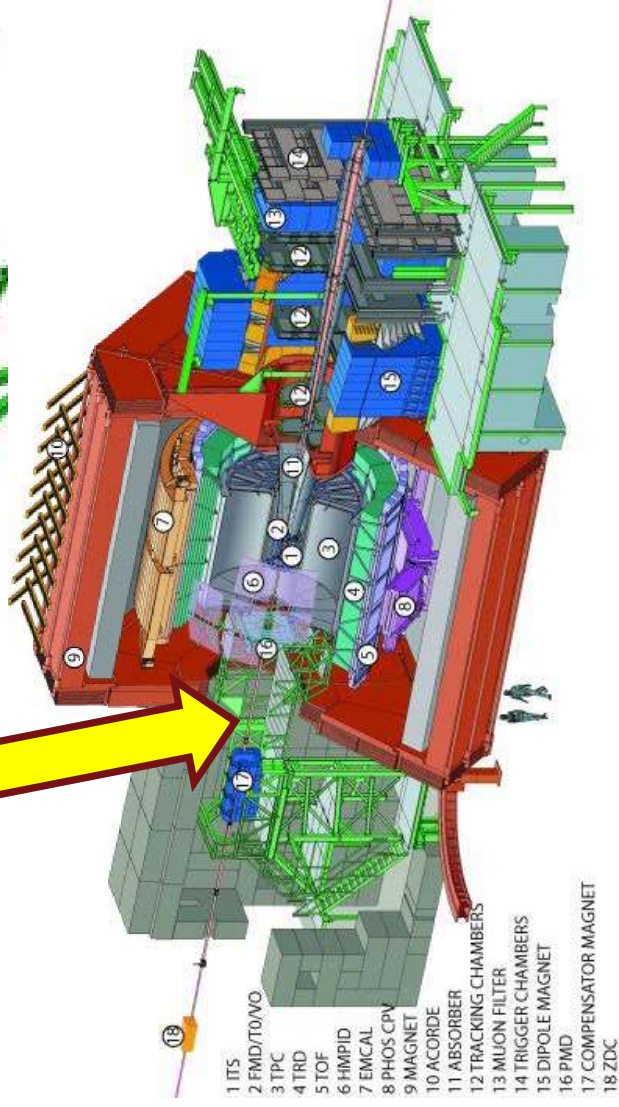
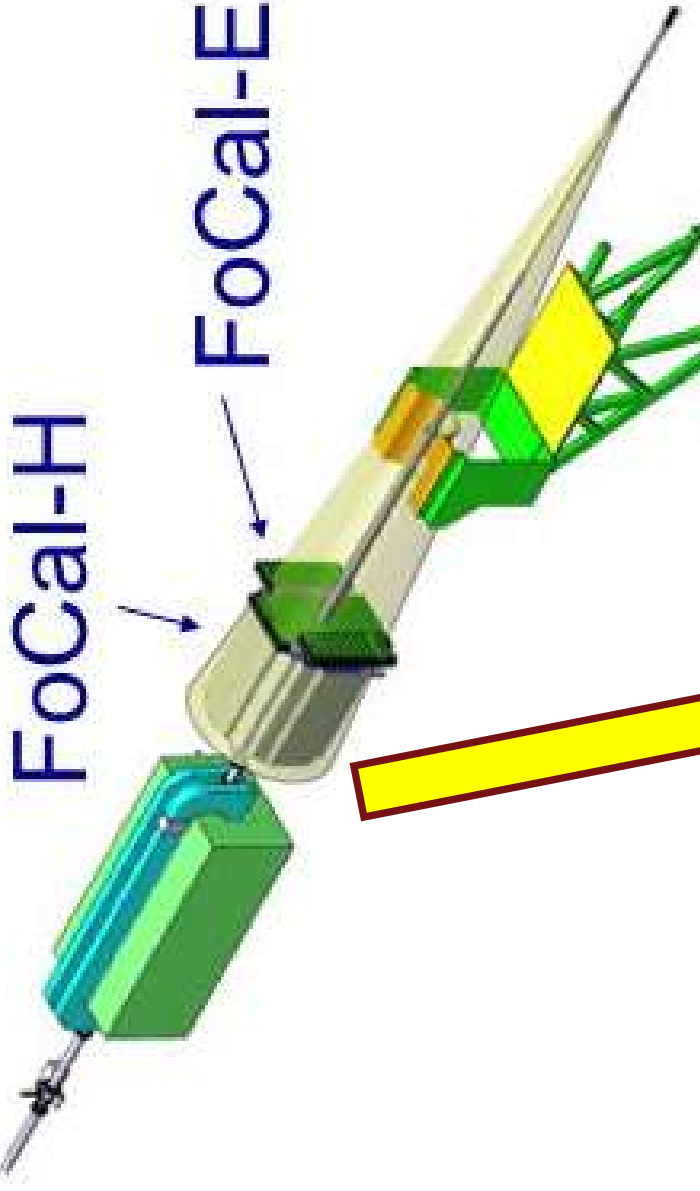
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calorimeter for photons and π^0

Cal-H: conventional Cu-Sc sampling
calorimeter for photon isolation and jets

NBI



NBI will lead FoCal-H, timeline:

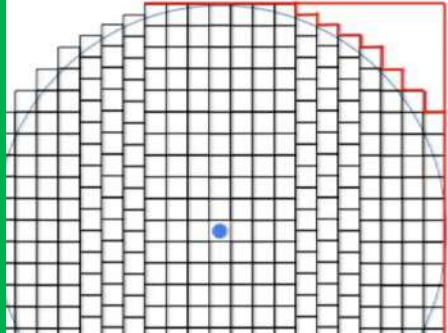
Industry!



Need out electronics?
 Voltage supply?
 Material+Machining?

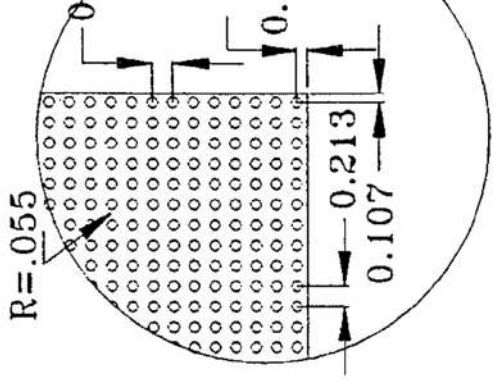
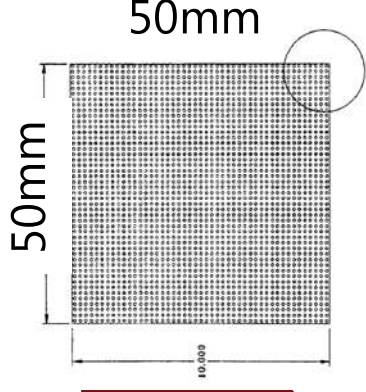
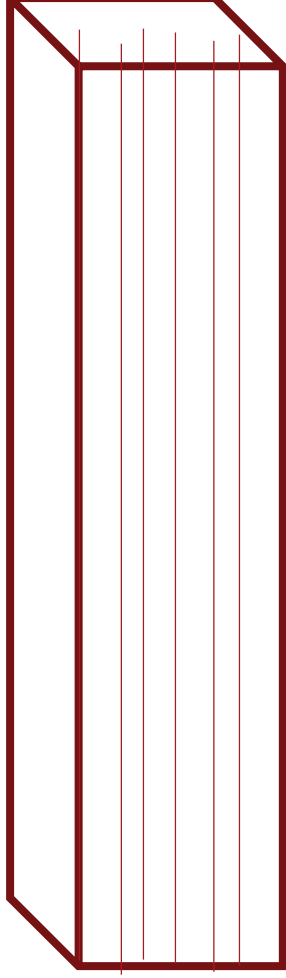
Cu or Fe (W?!) and
 Scintillating fibers

100-400 "towers"
 ≈10-15 tons



Made of 375

≈1200mm



Summary

Industry!

?

Preliminary design Summer 2020

Prototype fabrication Autumn/Winter 2020

Prtotype testing 2021

- Iteration??

Technical Design Report Q3 2021

Production from

- Q4 2021 (optimistic?)
- 2022 (realistic?)

Estimated budget (-design/engineering) 14MDKK